



### **ADVANCED PLACEMENT CALCULUS**

Grade 11 - 12

Elective

2 Trimesters

1 Credit

Prerequisite:

"B" average in calculus or recommendation of the calculus teacher

Note:

This course is intended to prepare students to take the College Board Advanced Placement Calculus A/B Exam. Extensive use of the graphing calculators will be a part of this course.

Objectives:

- ❖ To understand simple antiderivatives, Riemann Sums, and the definite integral.
- ❖ To reinforce the concepts learned in calculus and build on those concepts.
- ❖ To understand the definite integral, Fundamental Theorem of Calculus, and applications of the integral.
- ❖ To solve applications of the antiderivative, the Second Fundamental Theorem of Calculus, and the Trapezoidal Rule.
- ❖ To review and further develop skill using logarithmic, exponential, and the natural log functions.
- ❖ To use the definite integral to solve applications.
- ❖ To develop integration techniques using more than one rule including L'Hopital's Rule.

### **ADVANCED PLACEMENT ENGLISH**

Grade 12

Elective

3 Trimesters

1½ Credits

Prerequisites:

English 3. Motivation and willingness to do the extraordinary amount of work involved in the class.

Note:

The Advanced Placement Literature content will be taught in the fall and winter trimesters. The spring trimester will focus on preparing for the Advanced Placement English exam.

Objectives:

- ❖ To identify students who, having attained the reading and writing skills generally expected in introductory college courses in literature and composition, are ready for advanced, more specialized English courses when they arrive in college.
- ❖ To become more aware of the resources of language: connotation, metaphor, irony, syntax, and tone.
- ❖ To complete writing assignments that focus on critical analysis.
- ❖ To develop critical standards for the independent appreciation of literature.
- ❖ To increase the students' vocabulary for better shades of meaning.

Additional requirements:

- ❖ To read an assigned novel(s) over the summer.
- ❖ To complete assignments, readings, and projects in the specified time period.

### **ADVANCED PLACEMENT GOVERNMENT**

Offered in 07-08 school year

### **ADVANCED PLACEMENT PHYSICS**

Grades 11-12

Elective

3 Trimesters

1½ Credits

Prerequisite:

Biology, Chemistry, Algebra 2 (enrollment in Precalculus or Calculus is recommended).

Note:

Because of the nature of this course, these are the guidelines followed when advising students considering Advanced Placement Physics:

- Realize that this is a college level course.
- Be prepared to move at a fast pace.
- Understand that extra work including outside class assignments will be required.
- Be prepared to learn how to use high-level math skills.

Objectives:

- ❖ To develop an in-depth understanding of the laws and principles governing the physical world (including studies of motions, forces, momentum, energy, work, waves, heat, light, electricity, and resolution).
- ❖ To prepare formal lab reports based on careful measurements and data analysis.
- ❖ To utilize algebra and geometry in problem solving.

### **ADVANCED PLACEMENT PSYCHOLOGY**

Grade 12

Elective

3 Trimesters

1½ Credits

Note:

Because of the nature of this course, these are the guidelines followed when advising students considering Advanced Placement Psychology:

- Realize that this is a college level course.
- Be prepared to move at a fast pace.
- Understand that extra work including reading and outside class assignments will be required.
- Have a sincere interest in psychology.
- Be able to work independently with minimal supervision.

Objectives:

- ❖ To give students a college experience in psychology.
- ❖ To study the historical development of psychology.
- ❖ To study the basics of research, experimentation, and descriptive statistics.
- ❖ To study cognitive processes such as learning, memory, and thought.
- ❖ To study the biological bases of behavior including the brain and nervous system.
- ❖ To study motivation and emotions.
- ❖ To explore the alteration of consciousness, including chemical and non-chemical methods such as hypnosis and sensory deprivation, sleeping and dreaming.
- ❖ To study personality theory.
- ❖ To study the breakdown of the personality, neuroses, and psychoses.
- ❖ To prepare for the Advanced Placement exam.

### **ADVANCED PLACEMENT SPANISH**

Grade 12 Elective 3 Trimesters 1½ Credits

Prerequisites: Spanish 3 and recommendation

Note: Students who intend to take the national Advanced Placement examination will be expected to develop the ability for audio comprehension of native speakers.

Objectives:

- ❖ To place emphasis on reading and writing skills along with a study of Spanish and Latin American writers.
- ❖ To practice detailed comprehension and discussion of written Spanish.
- ❖ To improve knowledge through structure drills, oral practice and review, vocabulary drills, and creative exercises to further develop composition and discussion skills.
- ❖ To develop the student's ability to converse, write and read well enough for a general understanding of the Spanish language with knowledge of an appreciation for the influence of Spanish and Hispanic culture.

### **ADVANCED PLACEMENT UNITED STATES HISTORY**

Grade 11 Elective 3 Trimesters 1½ Credits

Note: Because of the nature of this course, these are the guidelines followed when advising students considering Advanced Placement United States History:

- Realize that this is a college level course.
- Be prepared to move at a fast pace.
- Understand that extra work including reading and outside class assignments will be required.
- Take the PSAT in the sophomore year.
- Score a minimum of 45 on the verbal section of this test.

Objectives:

- ❖ To give students a college experience in United States history.
- ❖ To study United States history in depth from 1400 to 1970.
- ❖ To find cause and effect relationships in the facts of United States history.
- ❖ To prepare students for the Advanced Placement exam.
- ❖ To sharpen students' skills in writing and document interpretation.

## **ADVANCED PLACEMENT WORLD CIVILIZATION**

Grade 10

Elective

3 Trimesters

1½ Credits

Note:

Because of the nature of this course, these are the guidelines followed when advising students considering Advanced Placement Modern World Civilization:

- Realize that this is a college level course.
- Be prepared to move at a fast pace.
- Understand that extra work including reading and outside class assignments will be required.

Objectives:

- ❖ To give students a college experience in world civilization.
- ❖ To develop an understanding of the major problems faced by humankind during the past 500 years.
- ❖ To heighten the ability to see relationship and distinction in world political, social, economic, and intellectual history.
- ❖ To develop the ability to extract from primary documents and secondary sources research instruments that will demonstrate interpretative and analytical ability.
- ❖ To read historical materials in a discriminating way and to write effectively.
- ❖ To develop within the student the ability to weigh evidence and reach conclusions on the basis of facts, not prejudice.
- ❖ To handle the discipline of college level work and to prepare for the Advanced Placement exam.